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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/244,019	02/04/1999	ICHIRO HATANO	P01-3151/TN	3275

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EXAMINER

THAI, TUAN V

ART UNIT	PAPER NUMBER
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2186

DATE MAILED: 10/23/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/244,019

Applicant(s)

HATANO ET AL

Examiner

Tuan V. Thai

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 May 2001.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 11-34 is/are pending in the application.
- 4a) Of the above claim(s) 1-10 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 11-34 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

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Part III DETAILED ACTION

Response to Amendment

1. This office action is in response to Applicant's communication filed May 26, 2001. This amendment has been entered and carefully considered. Claims 1-10 has been canceled. Claims 11-34 are newly added.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

- (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the

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amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

3. Claims 11-15, 18-23 and 34 are rejected under 35 U.S.C. § 102(e) as being anticipated by Kakitanie et al. (USPN: 5,978,732), hereinafter Kakitanie.

As per claims 11 and 19; Kakitanie teaches the invention as claimed including an information retrieving method and apparatus for retrieving target information from plural pieces of candidate information comprising a storage means for storing the plural pieces of candidate information in a hierarchical structure including m hierarchies; for example, Kakitanie teaches the path search hierarchical index data storage means 7, 187 (e.g. see figures 1, 18; column 7, lines 23 et seq.; column 8, lines 52 et seq.; column 20, lines 8 et seq.); output means for outputting a message which requests a user to input a reply is taught to the extent that it is being claimed, for example, Kakitanie discloses his apparatus having an input-output interface 420 (e.g. see column 1, line 17); in addition, Kakitanie further teaches that user can input a command by an input equipment such as key switch or light-pen (e.g. see column 1, lines 27-28); an input means for input information is taught as setting means 2 wherein the user can input or set a desired destination (e.g. see column 1, line 17, also see column 9, lines 18 et seq.); searching means for searching candidates as to a plurality of hierarchies in the

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hierarchical structure to determine a corresponding candidate to the reply (e.g. see column 2, lines 56 et seq.); wherein the next message which requests the user to input the next reply is further output from the output means based on the corresponding candidate until the corresponding candidate becomes the target information (e.g. see column 3, lines 7-53; column 7, lines 47-54; column 29, lines 42 et seq.);

As per claims 12 and 20, Kakitanie teaches the hierarchical structure is arranged such that each piece of the candidate information belonging to (n+1)-th hierarchy is associated with one of the plural pieces of the candidate information belonging to the n-th hierarchy; for example, Kakitanie clearly discloses that the road network data storage portion of the data storage means 7, 187 having a hierarchical structure as being depicted in figure 5 and further described on column 8, lines 54 et seq.;

As per claims 13 and 21, the concept of lower/higher order index data search in the lower/higher-hierarchical level network (p or p+1 hierarchy) is clearly taught by Kankitanie on column 15, line 63 bridging column 16, lines 18 et seq.; for example, Kankitanie teaches in one search method, when data shown in FIG. 14 is index data of map data shown in FIG. 4, it can be understood that a vehicle may travel toward a link 15 while referring to index data of a node m1 connected to a link 11 in order to move from the link 11 in a direction of A. Further, data

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of a node m2 connected to the link 15 is referred to find the next connecting link. This is recursively repeated to determine a route to the destination. At the time, if higher order index data is found at each node of path search hierarchical index data which will be described infra, the operation moves up to the higher order index data to continue the search.

As per claims 14-15 and 22-23, Kakitanie discloses searching means further comprising means for expanding candidates search wherein in a case where the corresponding candidates is not found in the p-th hierarchy, the searching means expand the candidates searched so that candidates in the (p+q)-th hierarchy are searched (e.g. see column 29, lines 32-54); it's further embedded in the system of Kakitanie that when the data or corresponding candidate is found, the searching means does not expand the candidates searched so that candidates in the (p+q)-th hierarchy are not searched;

As per claim 18, wherein the reply is in a form of voice, and the input means comprises a voice recognition means for recognizing the reply (e.g. see column 13, lines 43 et seq.);

As per claim 34, it encompass the same scope of invention as to that of claims 1 and 19, the claim is therefore rejected for the same reason as being set forth above.

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Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 16-17, 24-25 and 26-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kakitanie et al. (USPN: 5,978,732), hereinafter Kakitanie.

As per claims 16-17 and 24-25; Kakitanie disclose the invention as claimed, detailed above with respect to claims 1 and 19; Kakitanie does not particularly disclose the time-elapsd concept in which if the input information is not inputted or idled for a predetermined of time, output next message relating to next hierarchy or another one of the group. First of all, it should be noted that the concept of time and spatial locality are

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notorious old and well-known in the art; for example, Kakitanie does in fact disclose the spatial locality wherein the closest position being searched for the data path (e.g. see column 31, lines 37 et seq.); secondly, it would further have been obvious to one having ordinary skill in the art at the time the current invention was made to readily recognize that timing locality would further beneficially implemented in parallel with the spatial locality in the system of Kakitanie wherein if the input information is not inputted or idled for a predetermined of time, output next message relating to next hierarchy or another one of the group. In doing so, it would reduce data access latency, increasing system throughput, therefore being advantageous.

As per claims 26-33; Kakitanie discloses the invention as claimed, detailed above with respect to claims 11-18 and 19-25; Kakitanie however does not particularly disclose a computer-readable medium of instructions to be implemented on a storage medium as being claimed in claims 11-18 and 19-25. However, one of ordinary skill in the art would have recognized that computer readable medium (i.e., floppy, cd-rom, etc.) carrying computer-executable instructions for implementing a method, because it would facilitate the transporting and installing of the method on other systems, is generally well-known in the art. For example, a copy of the Microsoft Windows operating system can be found on a cd-rom from which Windows can be installed onto other systems,

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which is a lot easier than running a long cable or hand typing the software onto another system. The examiner takes Official Notice of this teaching. Therefore, it would have been obvious to put Kakitani's program on a computer readable medium, because it would facilitate the transporting, installing and implementing of Kakitani's program on other systems.

6. In response to Applicant's argument that Kakitani does not disclose the detail of about a man-machine interface which is used at the time of setting the desired destination (pages 10-11), Examiner would like to emphasize that Kakitani in fact discloses the man-machine interface concept as being equivalent to the user can input a command by an input equipment such as key switch or light-pen (e.g. see column 1, lines 27 et seq.); further, it has been held that the mere fact that the references relied on by the Patent and Trademark Office fail to evince an appreciation of the problem identified and solved by Applicant is not, standing alone, conclusive evidence of the nonobviousness of the claimed subject matter. The references may suggest doing what an Applicant has done even though workers in the art were ignorant of the existence of the problem.

7. Applicant's arguments filed May 01, 2003 have been fully considered but they are not deemed to be persuasive; the

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amendment necessitates new ground of rejection.

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 C.F.R. § 1.136(a).

A SHORTENED STATUTORY PERIOD FOR RESPONSE TO THIS FINAL ACTION IS SET TO EXPIRE THREE MONTHS FROM THE DATE OF THIS ACTION. IN THE EVENT A FIRST RESPONSE IS FILED WITHIN TWO MONTHS OF THE MAILING DATE OF THIS FINAL ACTION AND THE ADVISORY ACTION IS NOT MAILED UNTIL AFTER THE END OF THE THREE-MONTH SHORTENED STATUTORY PERIOD, THEN THE SHORTENED STATUTORY PERIOD WILL EXPIRE ON THE DATE THE ADVISORY ACTION IS MAILED, AND ANY EXTENSION FEE PURSUANT TO 37 C.F.R. § 1.136(a) WILL BE CALCULATED FROM THE MAILING DATE OF THE ADVISORY ACTION. IN NO EVENT WILL THE STATUTORY PERIOD FOR RESPONSE EXPIRE LATER THAN SIX MONTHS FROM THE DATE OF THIS FINAL ACTION.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan V. Thai whose telephone number is 703-305-3842.

The examiner can normally be reached on Monday-Thursday from 6:30 AM to 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor Matthew M. Kim can be reached on (703) 305-3821.

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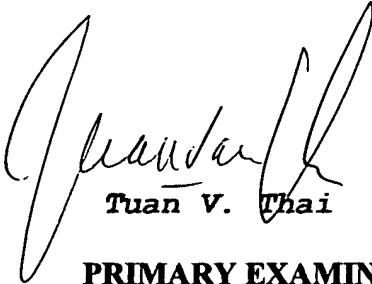
Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-3900. The Official Fax Numbers for TC-2100 are:

After-final (703) 746-7238

Official (703) 746-7239

Non-Official/Draft (703) 746-7240

TVT/October 16, 2003



Tuan V. Thai

PRIMARY EXAMINER

Group 2100